

## Projected semiconductor lithography development

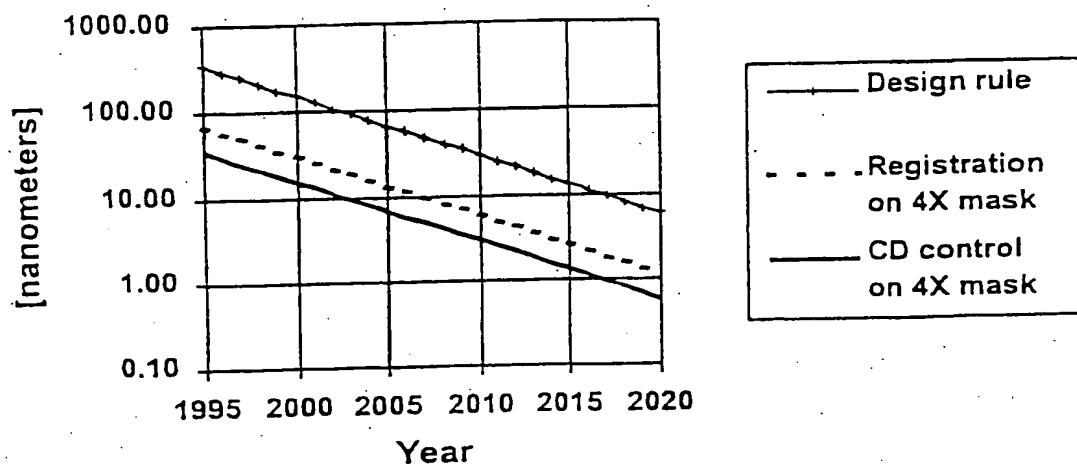


Fig. 1

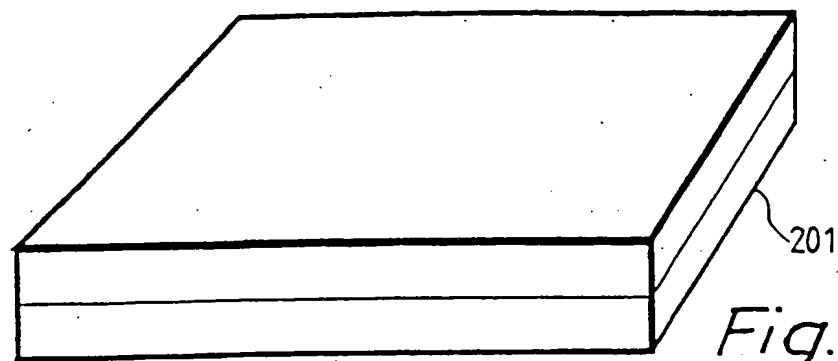


Fig. 2a

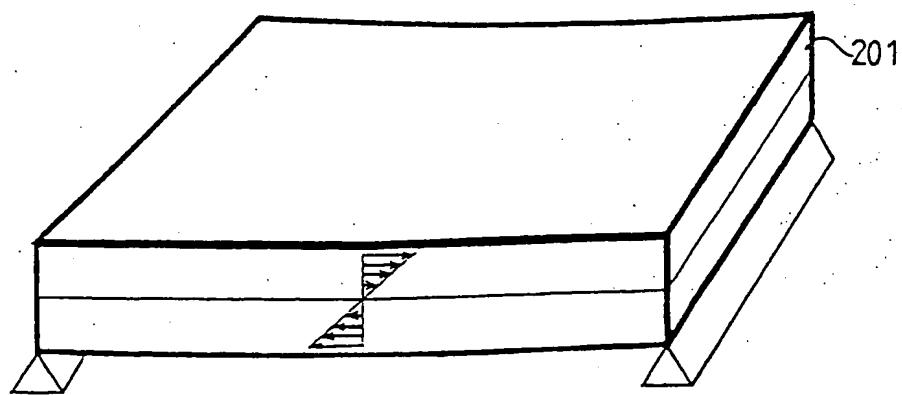


Fig. 2b

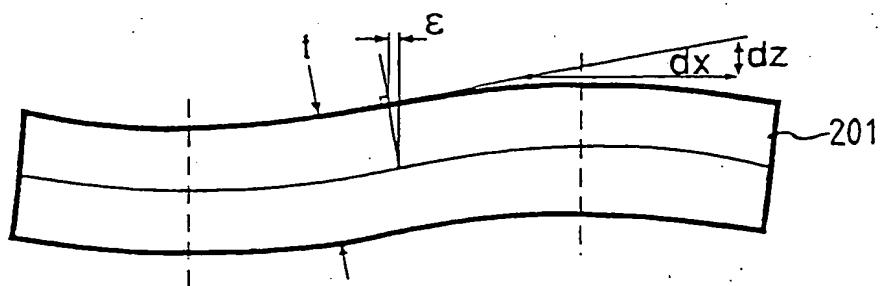
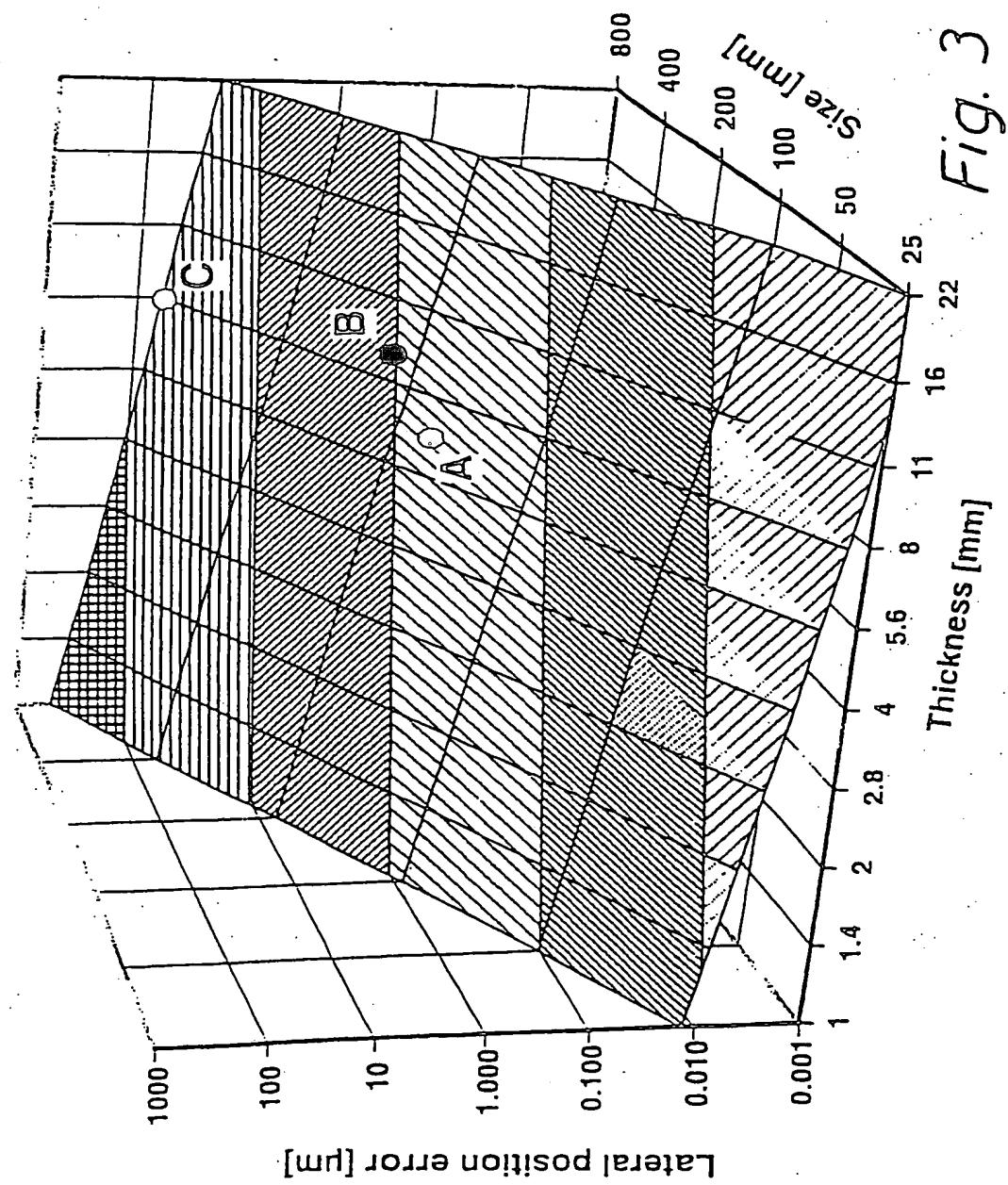


Fig. 2c

Glass plate supported on two sides



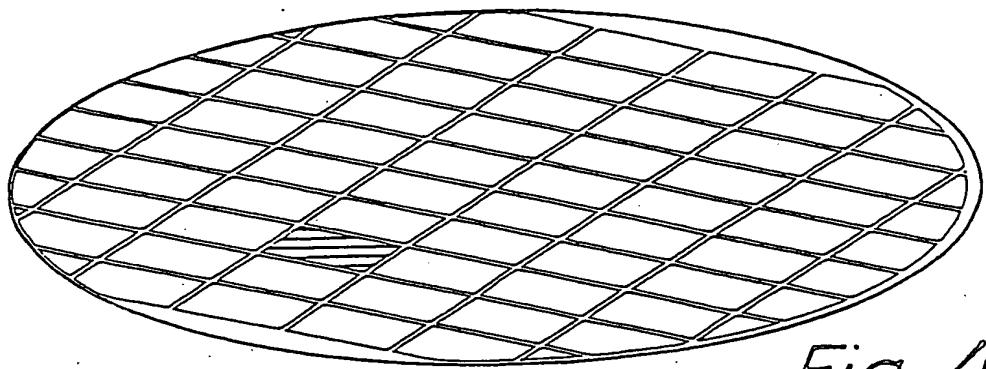


Fig. 4a

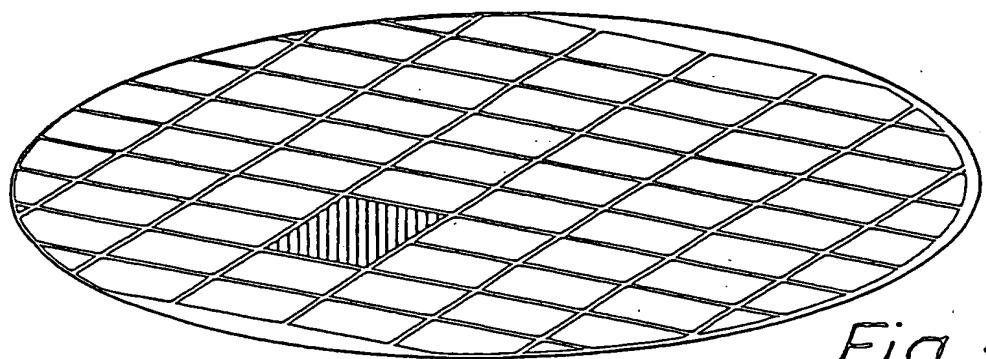


Fig. 4b

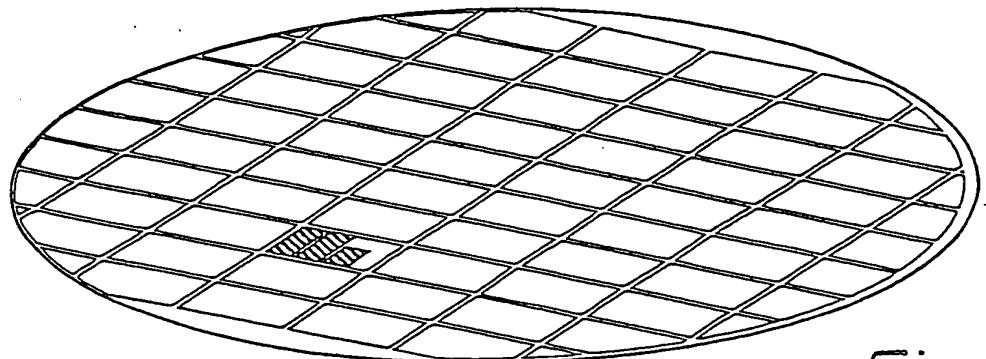


Fig. 4c

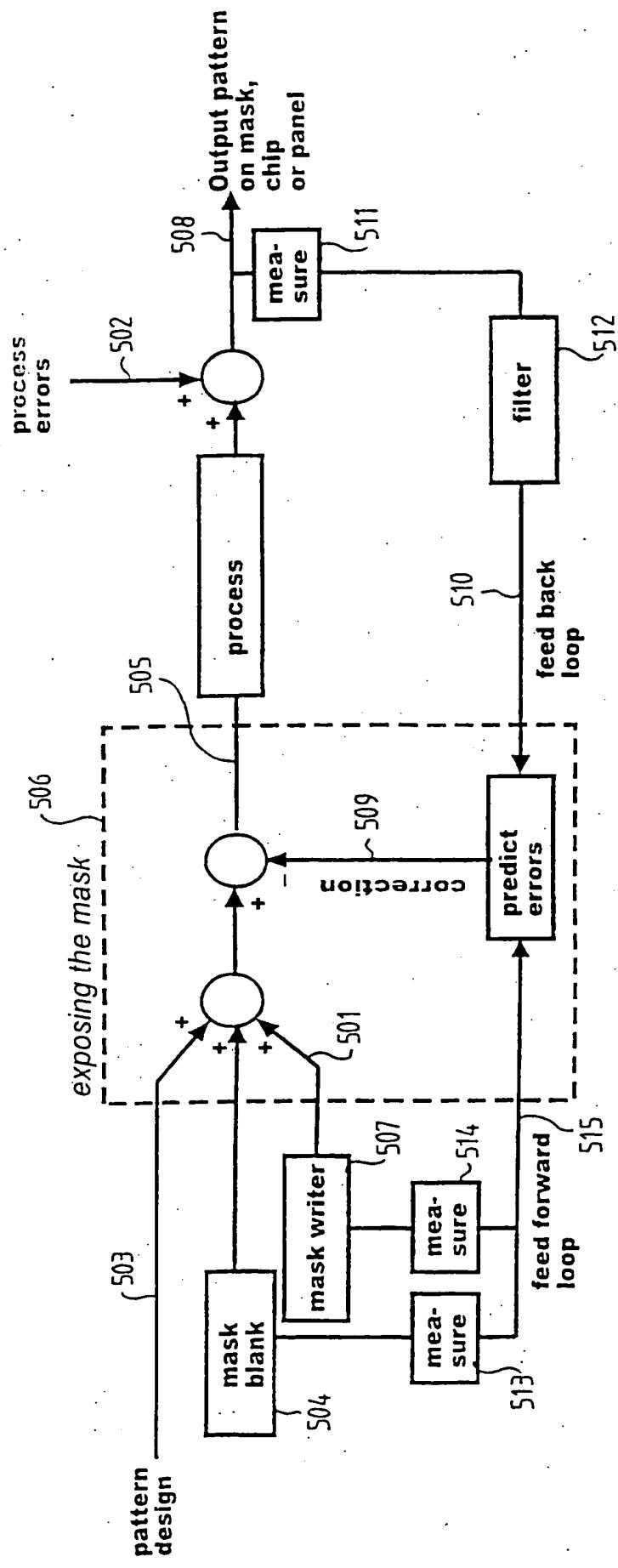


Fig. 5

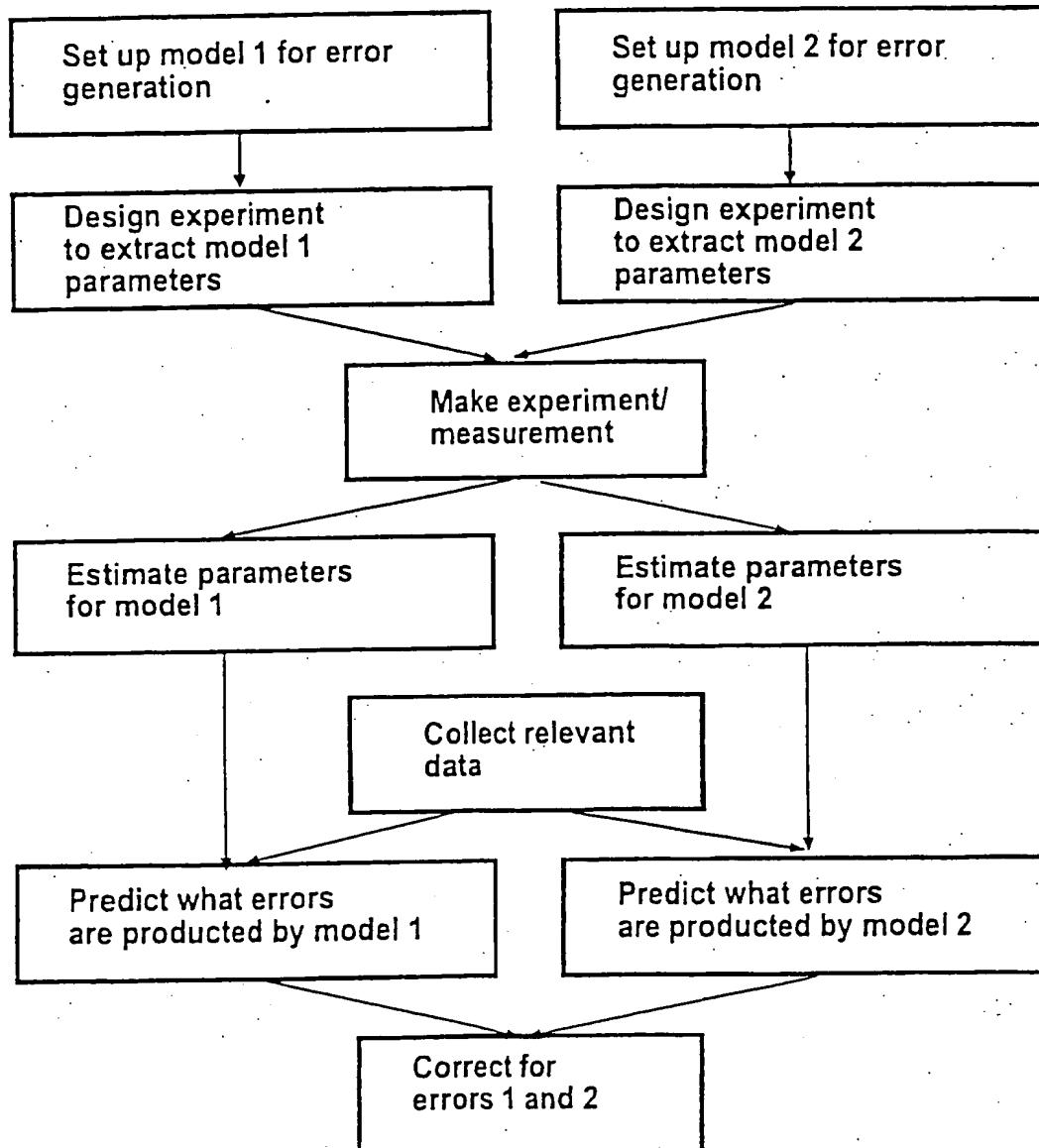


Fig. 6

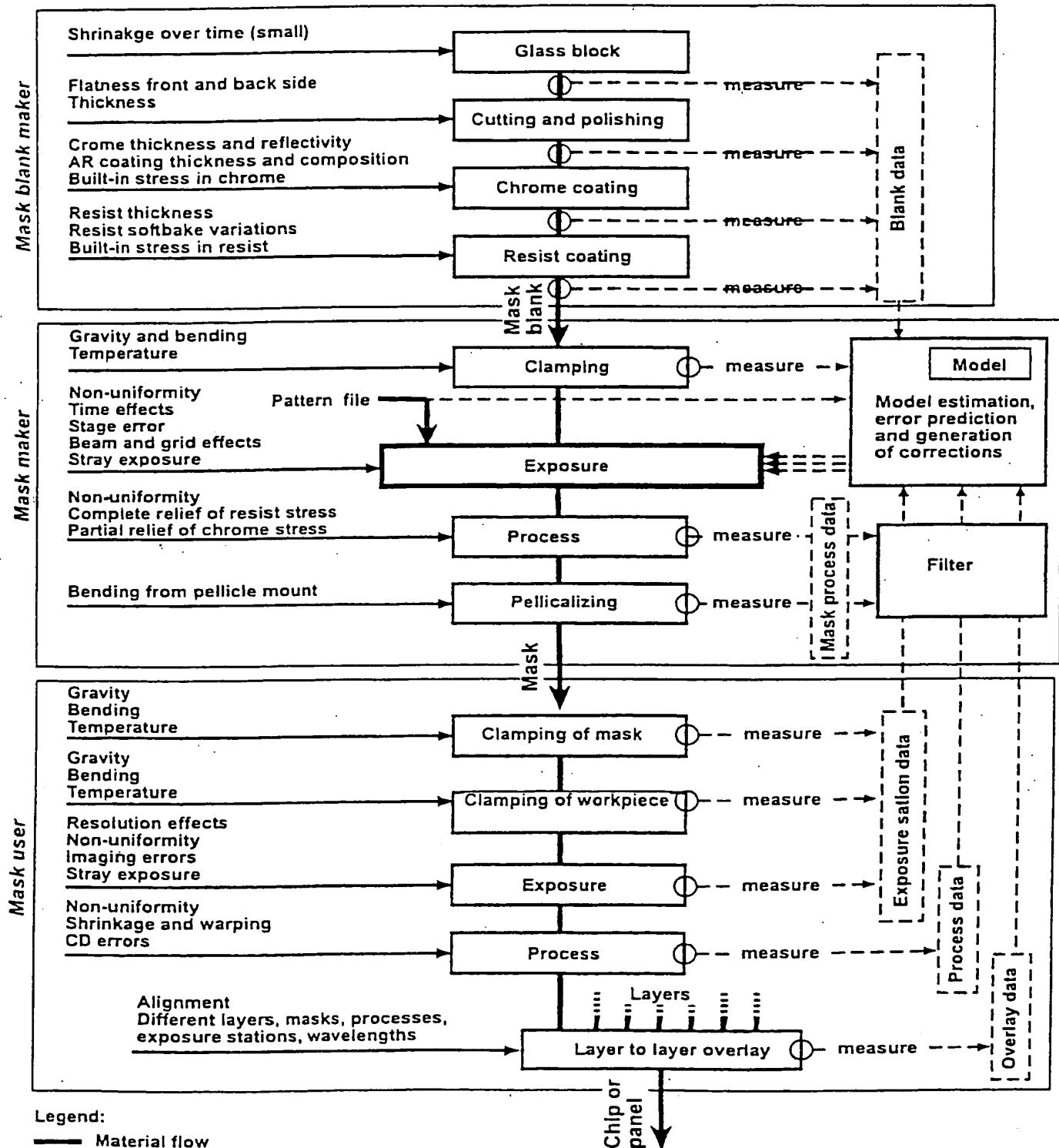
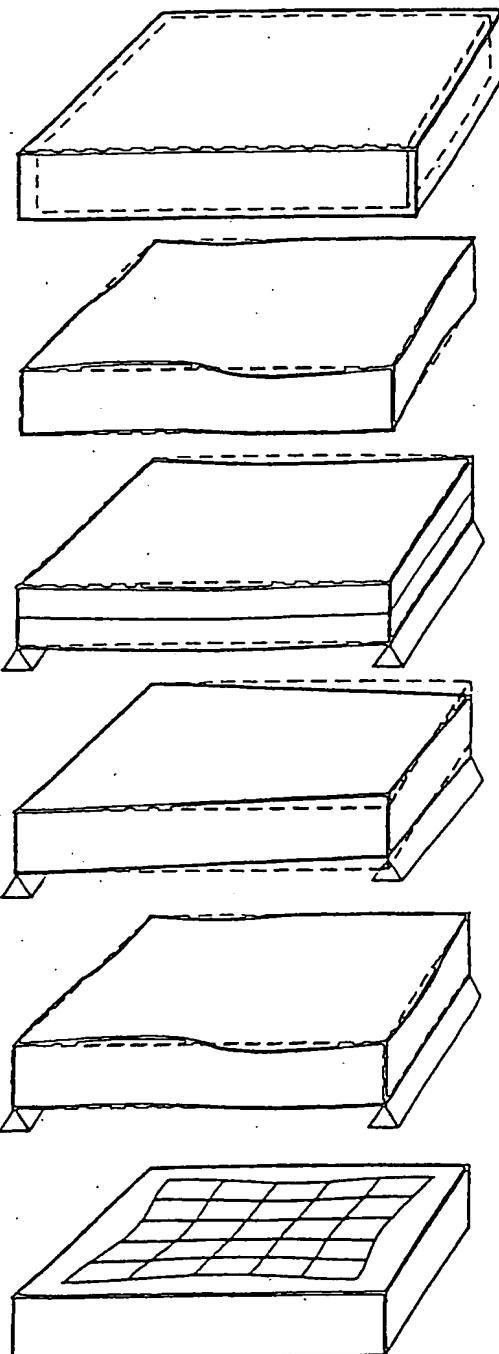


Fig. 7



Isotropic Expansion:  
Temperature, aging

Built-in shape:  
follows the plate

Gravitational sag:  
follows the type of  
clamping

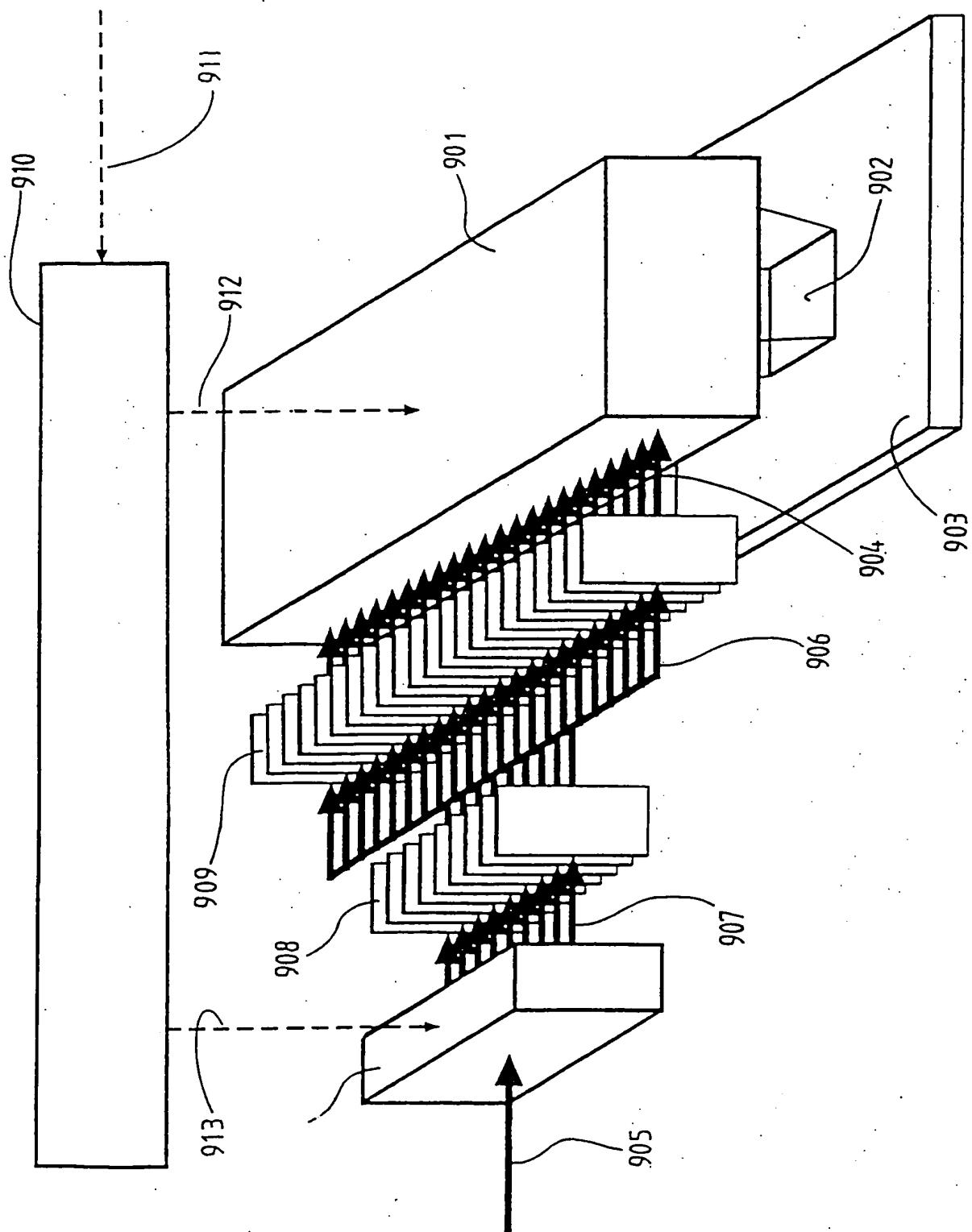
Clamping errors:  
Follows particular  
piece of equipment

Shape-clamping  
interaction:  
non-linear cross  
term

Coordinate errors:  
Follows particular  
piece of equipment

Fig. 8

Fig. 9



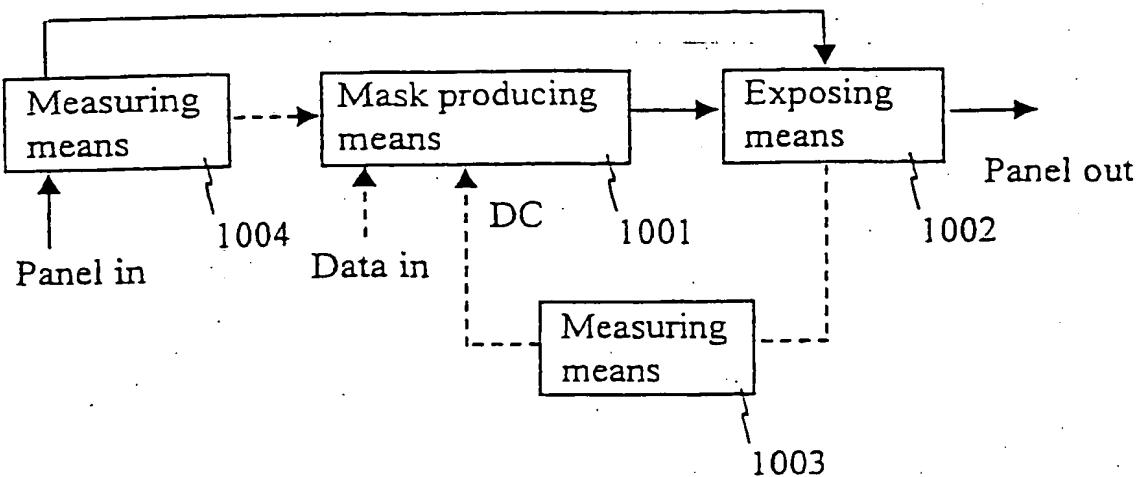


Fig 10

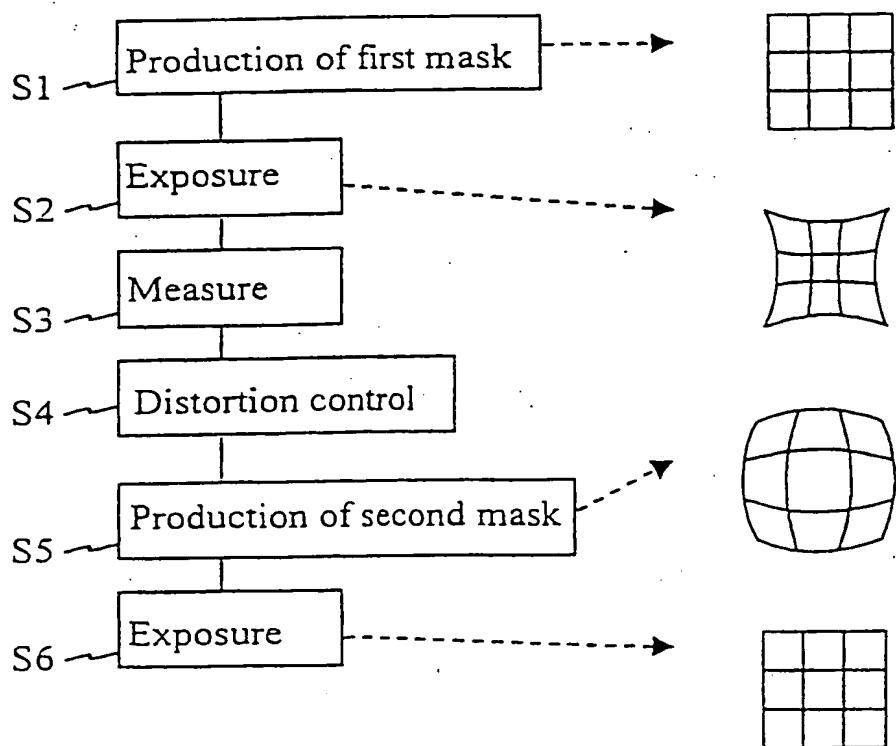


Fig 11

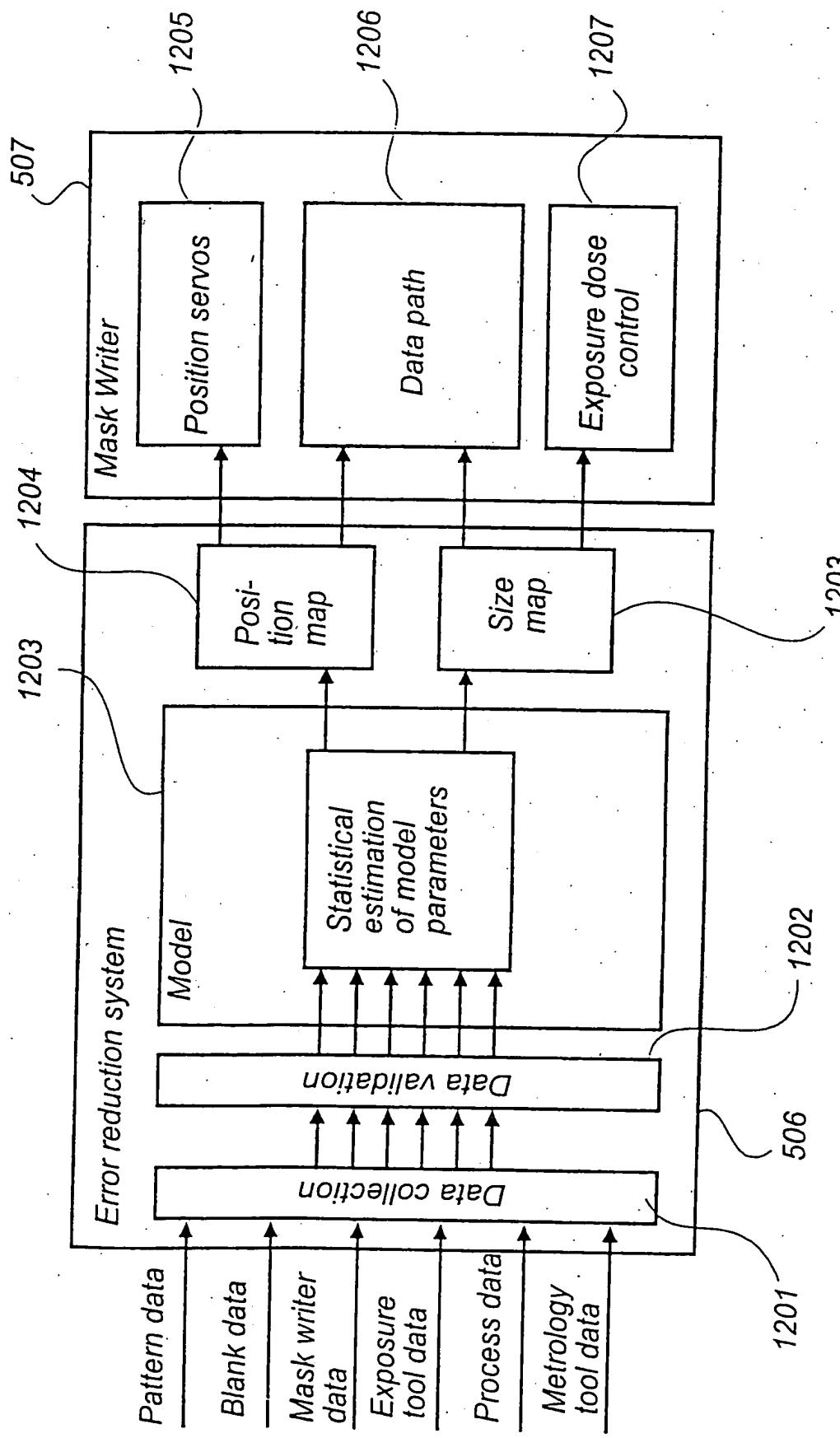


Fig. 12

Dose (x,y)

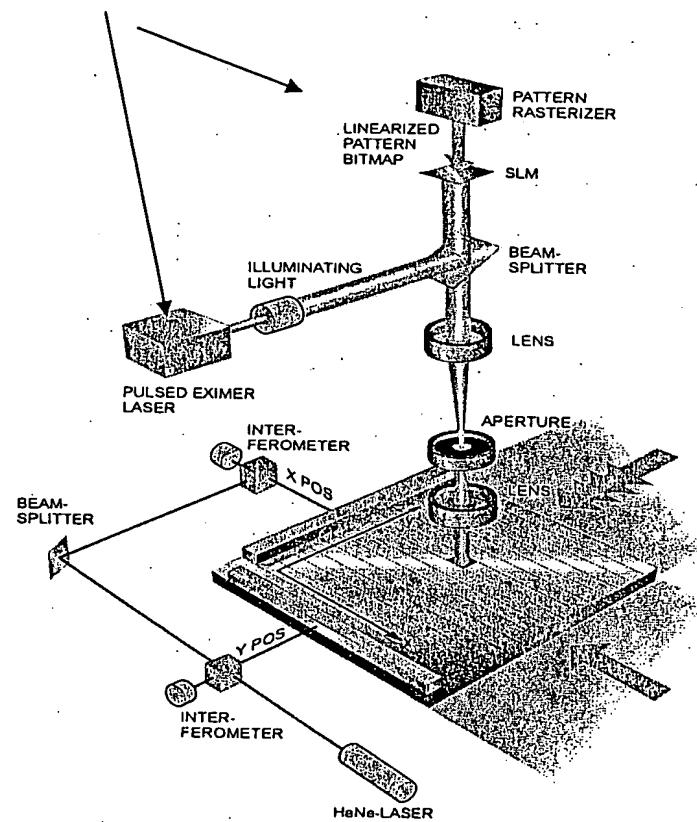
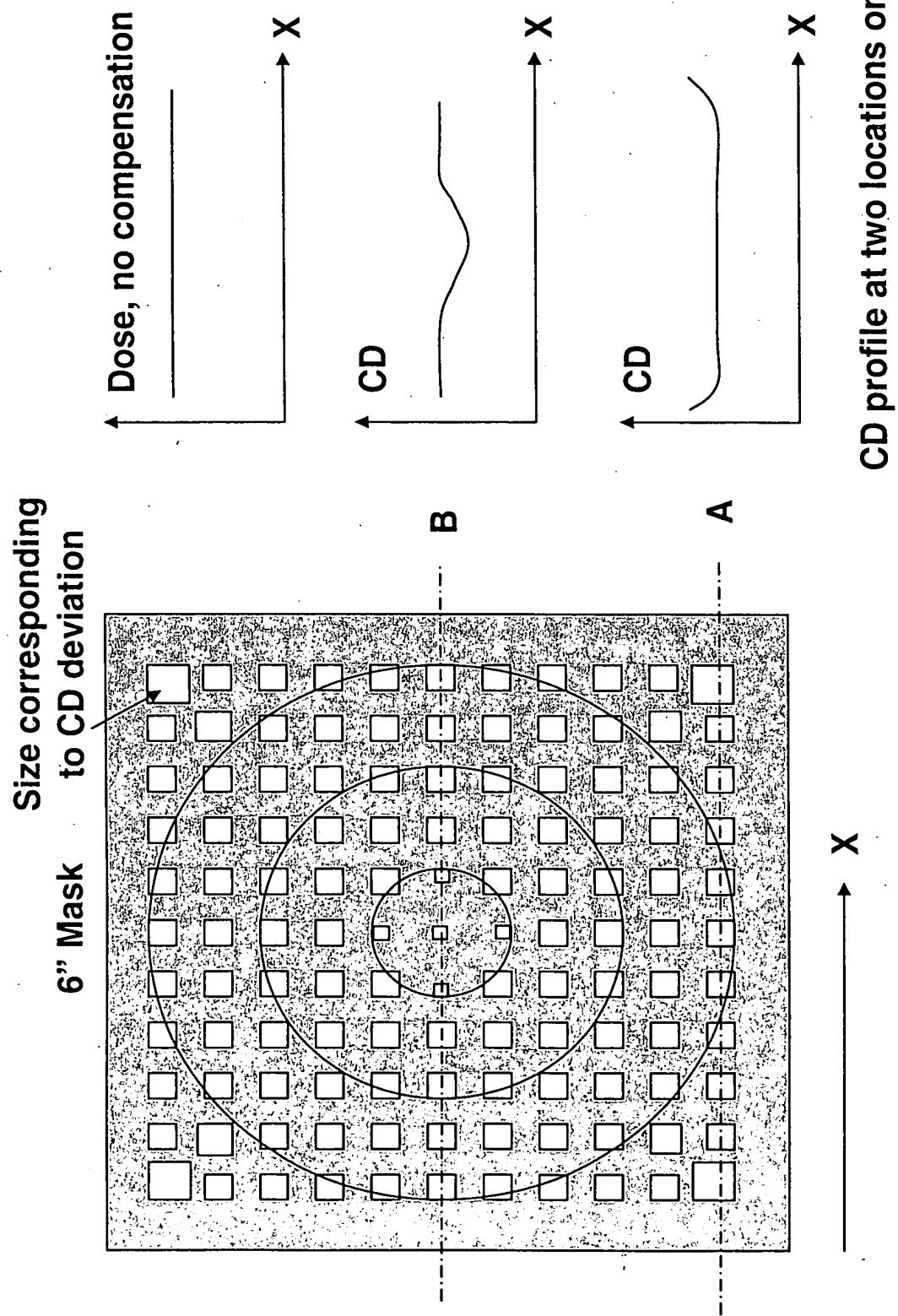


Fig. 13



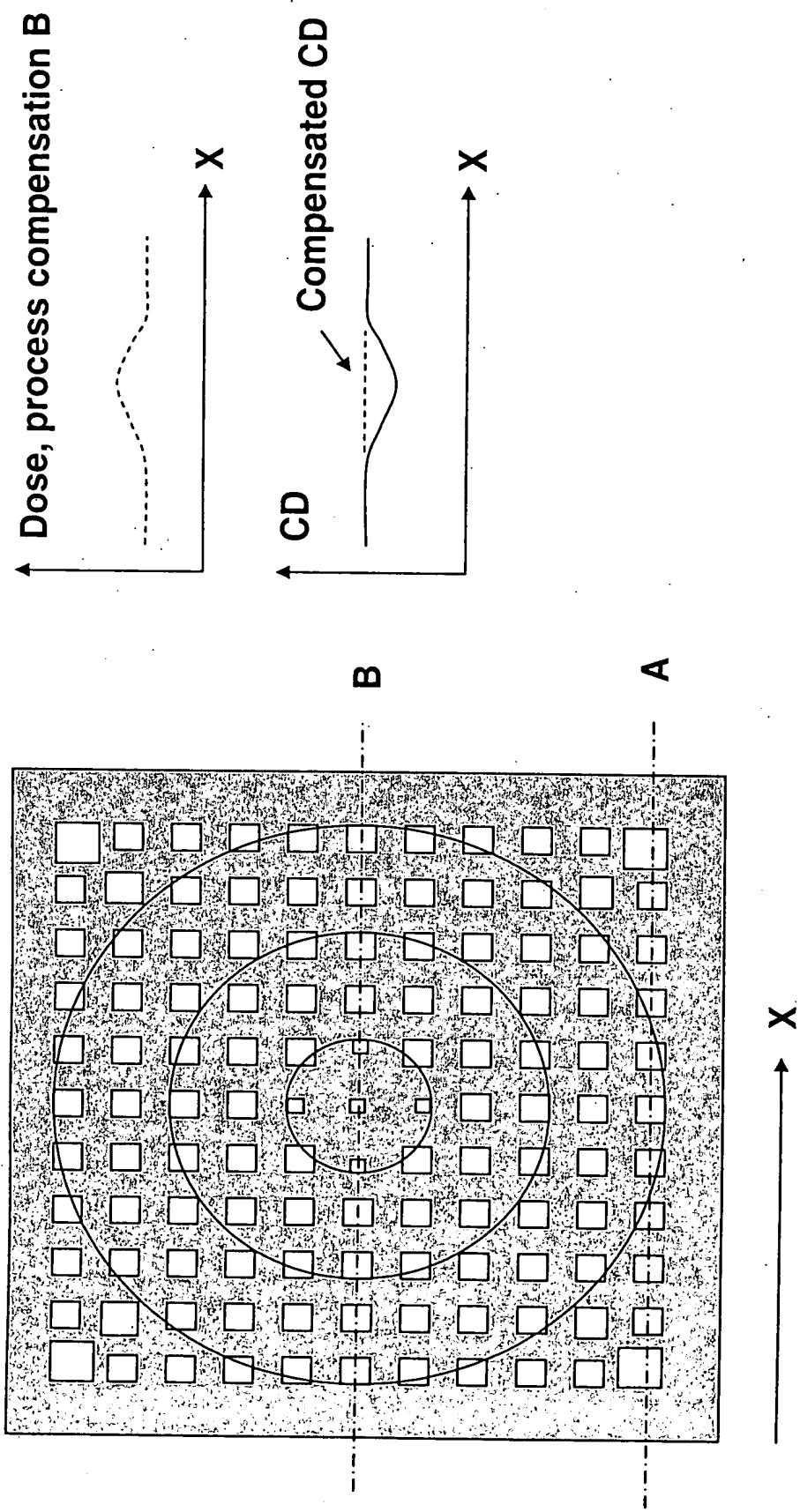


Fig. 14b

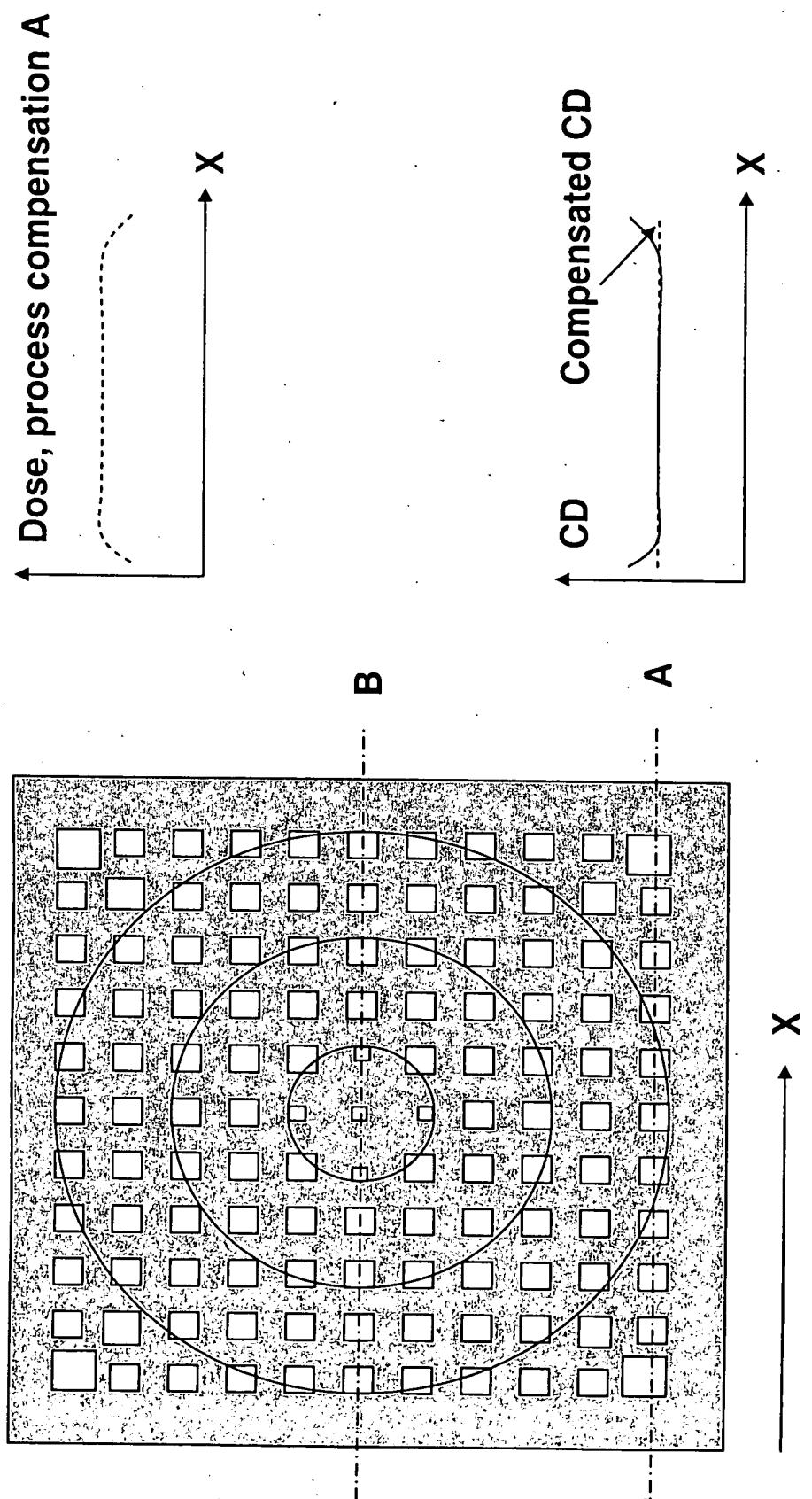
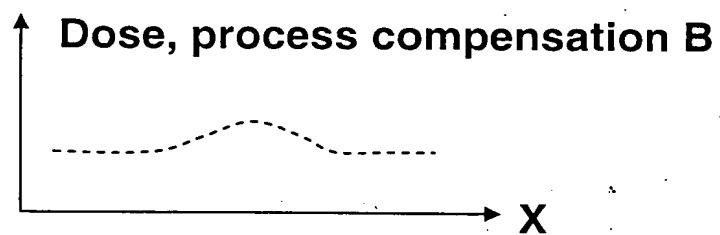


Fig. 14c



dose is a function of (x,y) position on plate.

Fig. 14d